

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION**

CHRISTIAN C. ROSE , an Ohio resident,	§	
	§	
Plaintiff,	§	
	§	
v.	§	
	§	
CENTRUS ENERGY CORP. ,	§	
a Delaware Corporation, individually and as	§	
successor-in interest to USEC Incorporated,	§	
UNITED STATES ENRICHMENT	§	
CORPORATION , a Delaware Corporation,	§	
URANIUM DISPOSITION SERVICES,	§	
LLC , a Tennessee Limited Liability Company,	§	
BWXT CONVERSION SERVICES, LLC ,	§	
a Delaware Limited Liability Company, MID-	§	
AMERICA CONVERSION SERVICES,	§	
LLC , a Delaware Limited Liability Company,	§	
BECHTEL JACOBS COMPANY, LLC , a	§	
Delaware Limited Liability Company,	§	
LATA/PARALLAX PORTSMOUTH, LLC ,	§	
a New Mexico Limited Liability Company,	§	
FLUOR-BWXT PORTSMOUTH, LLC ,	§	
an Ohio Limited Liability Company,	§	
	§	
Defendants.	§	
	§	

Plaintiff, Christian C. Rose alleges, upon information and belief:

NATURE OF CASE

1. This is an action by Plaintiff, Christian C. Rose for a Violation of Price-Anderson Act resulting in Christian C. Rose developing and suffering from Burkitt Lymphoma.

PARTIES

2. Plaintiff Christian C. Rose (“Rose” or “Plaintiff”) is above the age of majority. He is a resident of Pike County, Ohio.

Gaseous Diffusion Plant and Centrifuge Plant Defendants

3. Defendant Centrus Energy Corp. (“Centrus”), formerly USEC Incorporated (“USEC Inc.”), is a Delaware corporation with its principal place of business in Maryland. This action is brought against Centrus Energy Corp., individually, and as successor-in-interest to USEC Inc.

4. Defendant United States Enrichment Corporation (“USEC”) is a Delaware corporation with its principal place of business in Maryland and is a wholly owned subsidiary of Centrus Energy Corp.

5. Defendants Centrus and USEC at all times relevant were required to meet the standards set forth in 10 C.F.R. § 20.1301.

Depleted Uranium Hexafluoride Plant Defendants

6. Defendant Uranium Disposition Services, LLC (“UDS”) is a Tennessee limited liability company with its principal place of business in Florida.

7. Defendant BWXT Conversion Services, LLC (“BWXT”) is a Delaware limited liability company with its principal place of business in Kentucky.

8. Defendant Mid-America Conversion Services, LLC (“MCS”) is a Delaware limited liability company with its principal place of business in Kentucky.

9. Defendants UDS, BWXT, and MCS at all times relevant were required to meet the standards set forth in 10 C.F.R. § 20.1301.

Environmental Remediation and Waste Management Defendants

10. Defendants Bechtel Jacobs Company, LLC (“Bechtel Jacobs”) is a Delaware limited liability company with its principal place of business in Tennessee.

11. Defendants Lata/Parallax Portsmouth, LLC (“Lata/Parallax”) is a New Mexico limited liability company with its principal place of business in New Mexico.

12. Defendants Fluor-BWXT Portsmouth, LLC (“Fluor-BWXT”) is an Ohio limited Liability company with its principal place of business in Ohio.

13. Defendants Bechtel Jacobs, Lata/Parallax, and Fluor-BWXT at all times relevant were required to meet the standards set forth in 10 C.F.R. § 20.1301.

JURISDICTION AND VENUE

14. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331 because it arises under a law of the United States, namely, the Price-Anderson Act (hereinafter “PAA”), 42, U.S.C. § 2210, *et seq.* This Court may also exercise subject matter jurisdiction over this action directly pursuant to Section 2210(n)(2) of the PAA. It provides that the United States District Court in the district where a nuclear incident takes place shall have original jurisdiction with respect to any public liability action arising out of, or resulting from, a nuclear incident.

15. Under the Price-Anderson Act, Ohio state law provides the “substantive rules for decision” in this action because it involves a nuclear incident unless it is inconsistent with the terms of the PAA. If they are inconsistent, the Price-Anderson Act will pre-empt state law.

16. Venue is proper in this judicial district pursuant to 42 U.S.C. § 2210(n)(2) because the nuclear incidents giving rise to Plaintiff’s claims took place in this district.

INCIDENT FACTS

17. Ounce for ounce, radioactive isotopes are the most toxic materials known to man.

18. Radiation is emission or transmission of energy through space or material. Some materials spontaneously emit radiation through a process known as radioactive decay.

19. As these materials decay, they release radiation energy and transform into other materials which may then also decay by radiating energy and transforming into other materials.

20. Some radiation energies, including the radiation from the decay of radioactive materials used in nuclear and atomic processes, such as uranium, can penetrate other materials. When radiation energy interacts with other material, it causes ionization which can damage chemical structures. When ionizing radiation passes through human cells, it can damage those cells, resulting in mutations of genetic material. This can lead to cancer and other harm.

21. People are exposed to radiation in two ways: (a) external exposure from radioactive material in the environment and (b) internal exposure to radioactive material that has entered the body.

22. Radioactive material can be taken into the body by consuming food and liquids with radioactivity in them, by inhaling radioactive gases or aerosol particles, or by absorption through the skin. For as long as it remains inside the body, the material taken in will internally irradiate a person's organs and tissues.

23. One characteristic of both internal and external exposure to ionizing radiation on the human body is that even if the energy absorbed is low, the biological effects can still be gravely serious. Another characteristic is that there are latent biological effects of radiation.

24. Illnesses such as cancers may take years to appear. Research shows that uranium has a high chemical affinity for DNA. It causes genetic damage to individuals resulting in birth defects and cancer at levels much greater than generally present in similar communities.

25. One of the most dangerous aspects of radioactive materials is the length of time that radioactive isotopes will persist and accumulate in the environment. Radioactive materials decay over time.

26. Each radioactive material gives off radiation as it decays and transforms into a different material. The rate at which a radioactive isotope decays is measured in half-life. The term “half-life” is defined as the time it takes for one-half of the atoms of a radioactive material to disintegrate. For example, after one half-life, there will be one half of the original material, after two half-lives, there will be one fourth the original material, after three half-lives one eighth of the original sample, and so forth.

27. Uranium is particularly hazardous because it has a combination of chemical and radioactive genotoxicity owing to its high chemical affinity for DNA, the acknowledged target for the genetic and genomic effects which cause cancer. These effects are especially relevant to inhaled Uranium.

28. The toxic and carcinogenic effects of exposure to radioactive materials have been a matter of general scientific knowledge since the early 20th Century.

Gaseous Diffusion Plant

29. Located in Pike County, Ohio, is the 3,777-acre Portsmouth Site (“PORTS”). Uranium enrichment operations were performed there by the Defendants for many decades.

30. Located at PORTS is the Portsmouth Gaseous Diffusion Plant, or the “A-Plant”, as the locals refer to it. In July 1993, the USEC assumed the uranium enrichment operations at the Portsmouth Gaseous Diffusion Plant. It operated the plant until 2001.

31. The primary mode of enrichment was the gaseous diffusion of uranium hexafluoride to separate the lighter fissile isotope, U-235, from the heavier non-fissile isotope, U-238.

32. From 2001 to 2011, Defendant USEC was responsible for safely maintaining the A-Plant. Initially, the process equipment was kept in Cold Standby, capable of restarting if the need arose. Eventually, the plant transitioned to Cold Shutdown where systems were permanently disengaged, and equipment prepared for eventual decommissioning.

Depleted Uranium Hexafluoride Conversion Plant

33. In 2002, Defendant BWXT Conversion Services, LLC was contracted to design, build, and operate a Depleted Hexafluoride Conversion Plant (“DUF6 Conversion Plant”). Depleted uranium hexafluoride (“DUF6”) is a coproduct of the uranium enrichment process that occurred at PORTS.

34. The DUF6 Conversion Plant was designed and constructed to convert the DUF6 produced by both the Paducah and the Portsmouth Gaseous Diffusion Plants to a more stable uranium oxide form for reuse, storage, and/or transportation and disposition. A co-product of the conversion process is hydrofluoric acid, which is reused industrially.

35. In 2010, Defendant BWXT was contracted to operate the DUF6 Conversion Plant at PORTS. BWXT was also responsible for continuing cylinder surveillance and maintenance (“S&M”) services for the radioactive inventory of DUF6, low-enrichment uranium hexafluoride, normal UF6, and other cylinders. The contract was initially scheduled to expire in September 2016 but was extended to accommodate procurement for a new DUF6 operations contract.

36. In 2016, Defendant MCS was contracted to operate the DUF6 Conversion Plant.

37. MCS is responsible for providing cylinder S&M services for the DUF6 conversion facility and associated equipment, operating the conversion facility to convert the DUF6 from the inventory at the Paducah and Portsmouth plants to uranium oxide; reusing, storing, transporting and/or disposing of the DUF6 conversion process end-products; selling the aqueous hydrofluoric acid (“AqHF”) product; and providing S&M services for the cylinder storage yards.

Centrifuge Operations

38. In 2002, USEC signed a lease for use of centrifuge-related equipment and facilities at PORTS.

39. In 2004, USEC began operating what is known as the American Centrifuge Lead Cascade Facility (“Lead Cascade”). The Lead Cascade was a test loop that demonstrated the effectiveness of centrifuge design and equipment by processing uranium in a closed loop.

40. In 2016, USEC’s successor, Centrus, ceased uranium enrichment operations at the Lead Cascade. This was followed by the removal of uranium gas from the centrifuges and process piping, dismantling of equipment, and other actions needed to ultimately decommission the facility. The Lead Cascade is currently in the decommissioning phase.

41. The Lead Cascade was a test loop for USEC's, now Centrus’ American Centrifuge Plant (“ACP”). Construction began in 2007 at PORTS but stopped in 2009. On January 7, 2019, it was announced that the facility would be reopened, and the ACP is now under construction.

42. Centrus’ centrifuge operations are carried out pursuant to source materials licenses which allow for the possession of radioactive material but do not allow for the disposal of radioactive material via air dispersion into the surrounding community.

Environmental Remediation and Waste Management

43. Environmental cleanup at PORTS began in 1989, has been continuous, and continues today.

44. Between 1997 and 2005, Bechtel Jacobs was responsible for environmental remediation at PORTS.

45. Between 2005 and 2010, LATA/Parallax was responsible for environmental remediation at PORTS.

46. LATA/Parallax was responsible for groundwater and soil remedial actions, removing legacy waste, decontamination and decommissioning (“D&D”) facilities, highly enriched uranium disposition, operating the site waste storage facilities, and surveillance and maintenance activities, as well as other activities.

47. From 2010 to the present, Fluor-BWXT has been responsible for environmental remediation at PORTS. Fluor-BWXT’s work is expected to continue until 2024.

48. In 2015, a plan was agreed for the disposal of more than 2 million cubic yards of waste that would be generated from PORTS’ D&D processes. This plan includes the construction of an on-site waste disposal facility. Construction activities on the waste disposal facility, including site clearing and roadway construction, began around 2017.

Releases and Statistically Significant Increase in Cancer

49. Reports by DOE, NIOSH, and EPA demonstrate that there have been multiple releases of contaminants from PORTS, including both radioactive and/or hazardous contaminants, into the water, air, and soil in violation of federal statutes and/or regulations. Radioactive materials and toxic metals can be found deposited in soils, surface water, and buildings in and around PORTS in Piketon, Ohio.

50. Recent scientific testing performed at locations adjacent to PORTS on publicly accessible areas supports a conclusion that external radiation levels exceed the allowable level of exposure to members of the public under federal law, including the PAA, and including, but not limited to, more than 100 millirems above background levels in a calendar year.

51. Analysis of cancer rates for all cancers combined in the Census Tracts adjacent to the plant show statistical significance. Specifically, a 60% excess rate for all cancer types between 2011 and 2016, based on national and local cancer data.

52. The counties which contain and are adjacent to the plant, namely Pike, Scioto, Vinton, Adams, and Lawrence Counties, are among those having the highest cancer rates in the State of Ohio.

53. A preliminary review of statewide cancer data recently obtained from the Ohio Department of Health revealed a large excess of childhood blood cancer in the area immediately surrounding the plant.

54. Specifically, in the five census block groups closest to the plant, Plaintiff's experts found 13 diagnoses for leukemia and lymphoma under the age of 25 from 1996 to 2017 in a population of only 2,652.

55. Statistics provided by the Ohio Department of Health place the incidence of leukemia and lymphoma for those under the age of 25 living within these five census block groups at 4.9 cases per 100,000, compared to 1.62 cases per 100,000 in comparison populations.

56. A recent study by Northern Arizona University determined that offsite in the PORTS area: (a) Enriched Uranium is found in surface waters, sediments, and interior dust consistent with the operations at the PORTS; (b) Non-fallout ^{237}Np (Neptunium) and Pu (Plutonium) isotopes are found in bed sediments, suspended sediments, and interior dust; (c) Non-

fallout ^{237}Np (Neptunium) is found in sediments of an unnamed creek that is draining a landfill construction area that is currently being worked; (d) Enriched Uranium is found in interior spaces of Zahn's Corner Middle School and in attic dust; (e) Emissions from the Portsmouth Site account for the enriched contents of Uranium, Neptunium, and Plutonium encountered in environmental samples. *See Exhibit 1: Michael E. Ketterer, Investigation of Anthropogenic Uranium, Neptunium and Plutonium in Environmental Samples Near Piketon, Ohio, April 27, 2019.*

57. Plaintiff's experts have undertaken an initial statistical analysis showing clear evidence of excess cancer rates by comparing 12 other randomly selected areas of similar size in Ohio. Dr. Carl Werntz, an epidemiologist, has reviewed the cancer data collected by the Ohio Department of Health. Dr. Werntz has concluded that, based on a preliminary review, the childhood blood cancer incident rate for the area around the plant was triple the average incident rate compared to the 12 randomly selected areas, even though three of the randomly selected areas contained significant point sources of contamination. Additional statistical analysis and on-site sampling is required to fully characterize the cancer threat. *See Exhibit 2.*

58. Defendants could have prevented or mitigated the offsite impact with better precautionary measures, compliance with applicable regulations, and the use of reasonable care. The harm posed could have been reduced or avoided by reasonable instructions or warnings when it became clear that toxins had been released into the environment.

A Child Suffering from Cancer

59. Approximately two miles from PORTS is Zahn's Corner Middle School. The school served more than 300 students in the Piketon community for many years, including Christian C. Rose, who attended Zahn's Corner Middle School for two years.

60. On May 13, 2019, Zahn's Corner Middle School in Piketon, Ohio was suddenly closed due to health concerns because enriched uranium was detected inside the building.

61. Following the closure of Zahn's Corner Middle School, fencing was placed around the school property, warning of radioactive material. Anyone who goes beyond the fencing is required to wear protective gear. Zahn's Corner Middle School remains quarantined and closed.

62. Neptunium-237 was also detected by an air monitor next to the school. The school is approximately two miles from PORTS and served more than 300 students. This incident was the first notification to the community about radioactive materials migrating into populated areas from the Portsmouth Site.

63. The Plaintiff, Christian C. Rose was a student at Zahn's Corner Middle School. While at school, he was exposed to radionuclides. He was also exposed to radionuclides in the Piketon community.

64. For most of his life, the Plaintiff resided on Taylor Hollow Road in Piketon, Ohio, where he was exposed to the radionuclides at issue in this case.

65. On November 11, 2021, the Plaintiff went to Waverly Family Health Center, where he reported right side pain, constipation, cramping and blood in his urine. This was a sharp pain that hurt when he urinated.

66. On February 5, 2022, the Plaintiff went to Waverly Family Health Center, where he reported lower abdominal pain. This lasted for two weeks. Christian C. Rose had treated it with Tylenol and Motrin.

67. On February 9, 2022, the Plaintiff treated with Dr. Ali Mohammad ("Dr. Mohammad") at Valley View Family Health ("Valley View"). He was suffering from epigastric pain that had persisted for three weeks.

68. On May 17, 2022, the Plaintiff treated with Dr. Mohammad at Valley View. He was complaining of abdominal pain and sudden weight loss.

69. On May 23, 2022, the Plaintiff treated with Dr. Mohammad at Valley View. Blood work showed that his hemoglobin was low. He was referred to a pediatric oncologist.

70. On June 6, 2022, the Plaintiff treated with Dr. Mohammad at Valley View. He was having stomach pain when laying flat at night and was vomiting after meals. His fingernails were grayish in color, and he had cold hands.

71. A CT of the abdomen and pelvis was taken on June 9, 2022. It showed:

A large solid mass originating at the level of the pelvic rim is seen encasing small bowel loops and infiltrating the mesentery and retroperitoneum. The mass is predominantly solid but has some components that are fluid density which may represent cystic areas or necrosis. The mass may be obstructing the small bowel as no oral contrast is seen in the decompressed colon. A second mass along the inferior margin of the stomach is seen which may be omental. The etiology of the mass is uncertain however Burkitt's lymphoma should strongly be considered. A mass of testicular origin typically has more identifiable lymphadenopathy but should also be considered.

72. On June 22, 2022, the Plaintiff treated with Dr. Sarah Mangold at Nationwide Children's Hospital ("NCH"). He had been admitted on June 8, 2022, and was discharged on June 22, 2022. He had presented with iron deficiency anemia and a four-month history of progressively worsening abdominal pain and unintentional weight loss (60 pounds in two months). He was diagnosed with Burkitt Lymphoma. Chemotherapy was initiated on June 10, 2022.

73. On June 29, 2022, the Plaintiff treated with Dr. Megan Scruggs at NCH. He had been admitted for chemotherapy and discharged two days ago. He didn't feel well and was having daily headaches. He was pallid and fatigued, with scattered ulcers in his mouth. He had pain in his back and legs and was being given hydromorphone. Dr. Scruggs diagnosed him with **Burkitt**

lymphoma of intra-abdominal lymph nodes C83.73, Symptomatic anemia and Mucositis.
Labs were ordered.

74. On July 6, 2022, the Plaintiff treated with Carla Hughes, APN at Nationwide Children's Hospital. He was admitted to begin receiving chemotherapy. From June 25, 2022, to June 30, 2022, he had been admitted due to fever, neutropenia and right basilic thrombosis. He reported that his mouth was still tender, but that the ulcers in his mouth had improved. He avoided brushing his teeth due to the discomfort. He was given Rituxan and toothette sponges to brush his teeth.

75. The Plaintiff continues to suffer from Burkitt lymphoma as a result of the radiation released from PORTS.

CAUSE OF ACTION

(Violation of Price-Anderson Act Causing Death Against All Defendants)

76. Plaintiff incorporates by reference all allegations of the preceding paragraphs as though fully set forth herein.

77. Defendants released radiation into the environment in excess of federal regulatory limits, including 10 C.F.R. 20.1301.

78. Plaintiff, Christian C. Rose was exposed to the radiation released by the Defendants.

79. Plaintiff, Christian C. Rose has suffered injuries, including bodily injury and disease.

80. The radiation released by the Defendants caused the Plaintiff's injuries.

81. Defendants Centrus and USEC released radiation that exposed the Plaintiff to radiation in excess of 10 C.F.R. § 20.1301 by: (a) failing to shut down the gaseous diffusion plant

properly thereby negligently concentrating dangerous radionuclides which later were released into the environment during the subsequent remediation of the gaseous diffusion facilities; and, (b) failing to properly design, manage, and implement the remediation efforts throughout the PORTS facility which has allowed airborne particulate matter containing radionuclides to expose Plaintiff to harmful radiation; and (c) failing to properly design, manage, and implement the operation and remediation of the depleted uranium operations.

82. Defendants Uranium Disposition Services, BWXT Conversion Services, and Mid-America Conversion Services released radiation and contributed to the overexposure to radiation by (a) failing to properly contain airborne particulate matter associated with Depleted Uranium operations; and (b) failing to contain numerous leaks, emissions, and releases during operations, where those releases contained Uranium-238, which later decayed into Lead-210, Thorium-230, Radium-226, and Polonium-210, which now contaminates the community surrounding PORTS.

83. Defendants, Bechtel Jacobs, Lata/Parallax, and Fluor-BWXT released radiation and contributed to the overexposure to radiation by failing to properly contain enormous clouds of dust and excessive airborne particulate matter containing Uranium-238, Uranium-235, Uranium-234, Neptunium-237, Plutonium-238, Lead-210, Thorium-230, Radium-226, and Polonium-210 during their remediation work.

84. The Defendants named herein are all engaged in operations at PORTS which are part of the uranium fuel cycle and/or the nuclear fuel cycle.

JURY DEMAND

85. Plaintiff hereby demands trial by jury on all causes of action to which he is entitled.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully prays for a Jury Trial and for the following relief:

- a. For general and special damages, according to proof, including both compensatory and consequential damages as may be established at the time of trial;
- b. An award of damages for past and future medical expenses for the treatment and care of Plaintiff;
- c. An award of damages for the great pain, suffering, annoyance, aggravation, fear and inconvenience suffered by Plaintiff;
- d. An award of punitive damages, according to proof, as permitted by law;
- e. A finding that Defendants are jointly and severally liable to the Plaintiff for any and all damages, whether found or awarded by the Court or a jury;
- f. Prejudgment and post-judgment interest;
- g. An order directing Defendants to pay for the costs of this proceeding, including reasonable attorneys' fees and costs, including, but not limited to, costs as permitted by law; and
- h. Such other relief as the Court or jury may deem appropriate.

DATED: March 8, 2023

LEASURE & OLIVER, PLLC

/s/ Jason A. Leasure

Ohio State Bar No.: 0081684

Mathew R. Oliver

Ohio State Bar No. 0097318

P.O. Box 479

Lavalette, WV 25535

Telephone: (304) 409-4241

Email: jason@304carwreck.com

UNDERWOOD LAW OFFICE, INC.

/s/ Mark F. Underwood

Texas State Bar No.: 24059341

Southern Dist. of TX Bar No. 2601475

J. Patrick L. Stephens

WV Bar No. 10262, TX Bar No. 24099041

2530 West White Avenue, Suite 200

McKinney, Texas 75071

Telephone (972) 535-6377

Facsimile (800) 991-4384

munderwood@underwoodlawoffices.com

Pro Hac Vice Motion pending

THOMPSON BARNEY

/s/ Kevin W. Thompson

West Virginia State Bar No.: 5062

David R. Barney, Jr. (WV State Bar No. 7958)

2030 Kanawha Boulevard, East

Charleston, WV 25311

Telephone: (304) 343-4401

Facsimile: (304) 343-4405

kwthompsonwv@gmail.com

drbarneywv@gmail.com

Pro Hac Vice Motion pending

COOPER LAW FIRM, LLC

/s/ Celeste Brustowicz

Stephen H. Wussow

Victor Cobb

1525 Religious Street

New Orleans, LA 70130

Telephone: (504) 399-0009

cbrustowicz@sch-llc.com

swussow@sch-llc.com

vcobb@sch-llc.com

Pro Hac Vice Motion pending

ATTORNEYS FOR PLAINTIFF